MEDICARE PAYMENT ADVISORY COMMISSION

PUBLIC MEETING

The Horizon Ballroom
Ronald Reagan Building
International Trade Center
1300 Pennsylvania Avenue, N.W.
Washington, D.C.

Thursday, March 20, 2003

9:17 a.m.

COMMISSIONERS PRESENT:

GLENN M. HACKBARTH, Chair
ROBERT D. REISCHAUER, Ph.D., Vice Chair
SHEILA D. BURKE
AUTRY O.V. "PETE" DeBUSK
NANCY-ANN DePARLE
DAVID DURENBERGER
RALPH W. MULLER
ALAN R. NELSON, M.D.
JOSEPH P. NEWHOUSE, Ph.D.
CAROL RAPHAEL
ALICE ROSENBLATT
JOHN W. ROWE, M.D.
DAVID A. SMITH
RAY A. STOWERS, D.O.
MARY K. WAKEFIELD, Ph.D.
NICHOLAS J. WOLTER, M.D.

AGENDA ITEM:
Impact of providers' costs on the quality of dialysis care
-- Chris Hogan, Direct Research, LLC
-- Nancy Ray

MS. RAY: Back at the November meeting I presented a workplan to look at the relationship between dialysis provider costs and the quality and outcomes of care furnished by freestanding dialysis facilities. Let me just go back and review of little bit of the study motivation behind why we wanted to perform this analysis.

MedPAC in the past has observed a pretty big variation in the cost per treatment for freestanding hemodialysis composite rate services. It ranges anywhere from about $110 treatment to nearly $170 per treatment. MedPAC has also observed that for lower-cost facilities they produce more treatments on average with a given bundle of inputs. We've looked at that by looking at total treatments per employee as well as treatments per station.

So we became interested in examining the relationship between efficiency -- and when I say efficiency I mean providers who have lower cost are saying that they are more efficient -- and quality of care and outcomes. What makes the dialysis area a little bit unique is that we do have some pretty well agreed upon quality measures and outcomes that we can use to compare quality and outcomes between facilities.

As far as quality of dialysis care, two measures that facilities have a directing bearing on is adequacy of dialysis and anemia management. Less direct measures include use of hospitalization services, rates of hospitalization, hospital days, rate of mortality as well as rate of transplantation.

I looked at the literature to see what else was out there and who else has done any kind of research like this and what I found is that there are no recent studies that examine the relationship between outcomes and quality of care and provider cost. Much of the literature has been focused on looking at other characteristics of providers, including the providers' profit status and the size of the facility.

The results of those studies tend to be mixed. In the chapter which we will be presenting to you at the April meeting we will compare our results to what other folks have found. But one notable study is a study authored by some of the folks at CMS who showed few differences in adequacy of dialysis and hematocrit anemia status based on the facility's profit status.

So in order to address the question of looking at the relationship between quality and provider cost, MedPAC contracted with Chris to perform this analysis for us. As you've seen, Chris has lots of relevant experience in taking on this issue including his expertise in using Part A and Part B claims, and looking at other specific groups of beneficiaries, namely post-acute care users as well as folks at the end of life.

We are planning on incorporating the results of this analysis in a chapter in the June report, and like I said to you at the last presentation, we encourage you to ask us questions on the methods and results so we can provide those answers back to you in April.

DR. HOGAN: So for this presentation there's only one question, so it's a much simpler presentation, at least in theory. The next slide will be, what is the question we're trying to answer? I'll tell you a little bit about methods and move right on to the results. It's going to be a relatively short presentation I think.

The question is simple, do you get more if you pay more, or do the facilities get more if they pay more? Do the facilities with highest cost produce what appears to be a higher quality product? Facilities with low cost, are they stinting on care to the extent that you can see lower quality measures? The more general question comes up after you run the data. The more general question is, is there any correlation whatsoever between cost and quality for the freestanding dialysis centers? That's the question we're going to try and answer.

The obvious policy context here is adequacy of payment. You'd like to know if you raise payments and if costs are brought up to match payments whether you're buying yourself more quality by raising the amount that you pay these facilities.

General issues on methods. It's a very simple question. It's a very difficult question to answer. Lots of data out there. Normally when you have a quality question you wring your hands and say, gosh, if we only had clinical indicators of quality we could answer this question. Well, I don't have that excuse. We have excellent clinical indicators of quality. They're coded on the claims. We have them for all the beneficiaries. It's still a difficult analytical question. Lots of confounding influences. You know there's been a strong upward trend in these quality measures over the last few years despite minimal increases in payments. So clearly what we find in any one year is going to be a different relationship, at least in the aggregate, with what we find in any other year.

Most facilities are very small. This is the thing I didn't realize till I actually had to go look at the claims data. The median facility has 70 patients. Where you would think of a hospital as having thousands of discharges, the typical freestanding dialysis facility has 70 patients. Differences in case mix matter a lot in terms of determining their cost, which I had not anticipated going into this.

We have to rely on cost reports for this. As an economist I'm always a little dubious of accounting; I'm trained to be dubious of accounting data. Tough luck; it's the only cost measure we have. We have no patient-level measure of cost. The only place cost exists are at the facility level. We take them off the facility reports, we calculate an average per treatment and there's way to say, Mr. Jones cost a lot and Mrs. Smith costs very little. We don't have any information to infer that. All we know is the average of all the patients in that facility cost a lot or cost a little.

This is trying to mosey toward the conclusion at the bottom of the slide which is, of all the ways we could have done this analysis, to run it at the patient level with better risk adjusters but not very good cost measures, to run it at the facility level where we've got the cost but we have to aggregate the patient characteristics, the initial cut at this is going to be a facility-level regression so we'll have a few thousand observations on facilities and we'll take patients' characteristics and aggregate them to the level of the facility for our risk adjuster.

I should mention chain ownership but I'll bring that up at the end.

Quality indicators. Just so you know what we're talking about. Urea reduction ratio is just the fraction of the urea in the blood that's taken out during dialysis. The evidence is very good that if you don't take out at least 65 percent on the typical session that you get lots of bad outcomes, including higher mortality rates. The research also shows that if you take out more than that, if you do better that 65 percent, you get no particular benefit from doing that. So it's a very good, very hard line that you'd like to see. You'd like to see all patients achieve this at every session.

Hematocrit is just the fraction of your blood that's red blood cells. Kidneys produce

erythropoietin which stimulates your body to produce red blood cells. When you go into kidney failure, you don't produce it. They have to give you these $10 shots, $10 of those shots that the Medicare program pays for, and that's the main treatment is to provide hematocrit and iron.

I was told I shouldn't get into medical stuff here with the doctors around.

The other three outcomes are -- this is for the lay audience. The other three outcomes are much less directly related to what the facility does. The facility presumably has the dialysis adequacy and hematocrit within their scope of practice, so to speak. Death rates, transplantation rates, and hospitalizations are obviously going to be affected by many, many things other than what the dialysis facility itself does, but they are traditional measures of quality, or at least traditional measures of outcome for the ESRD program so they're included here.

I have to mention one thing about transplantation rate which is a fact that amazed me, and amazed me so much I put the slide in your paper. Medicare pays for less than half the kidney transplants in the country. The others are presumably paid for under the Medicare secondary payer provisions. So that when I go looking for transplants in the claims, my transplantation rate is about half of the true transplantation rate because I'm only finding the people that Medicare is paying for. So whereas my death rates benchmark to other sources, my hospitalizations benchmark to other sources, my transplantation rate, because it's based on claims, is only about half the rate that other sources show.

DR. ROWE: Why is that surprising?

DR. HOGAN: I just didn't realize that Medicare had so successfully shifted costs onto the private sectors. I guess that's what I didn't realize.

DR. ROWE: Because I think the private sector pays the first 30 months, and almost everybody who gets transplanted -- you know you're getting kidney failure, you have your family members tested. Ideally you get transplanted before you get on dialysis so you never really go to that step, or shortly thereafter beginning dialysis, so it makes sense.

DR. HOGAN: Let's look at the dialysis facilities, let's edit their cost reports a lot, partly to figure out which cost reports completely overlap with a year of claims. People would just have a cost report year that ends in September, I have to get rid of them because they're not going to match my claims data.

There are other items that are not particularly useful for calculating average cost but I wanted to look at. For example, they need to report the total number of doses of erythropoietin and their total spending on erythropoietin, and those are items that you don't really have to use to calculate an average cost but I wanted to benchmark to make sure my claims and the cost reports matched.

I added the cost reports. I sort them by quartile of cost and here's what they look like. Starting from the right, the right-hand column is economies of scale. The expensive facilities are down at the bottom. The inexpensive facilities are up at the top. Look, the expensive facilities are all smaller than the inexpensive facilities on average. That made sense.

Private share, I'm going to skip over because I don't really have a good interpretation for that yet.

Rural -- perfect sense. The cheaper facilities in dollar terms are in rural areas where the wages presumably are lower.

The chains tend to be cheaper. The for-profits tend to be cheaper. And of course, the first column on the left gives you the spread in the cost across those four quartiles. As Nancy already mentioned, there is quite a spread in the average cost. This is the average cost per

hemodialysis treatment.

Now I'm going to briefly describe the regression results without putting them on the slide because there's just too many numbers and the regression results were not all that interesting. There are univariate tables in the report that show you there appears to be no one-way correlation between cost and quality from what I could tell. So to do a better job we ran a bunch of regressions. When I saw a bunch, there are lots more than you saw in the report.

Those regressions included not only the characteristics of the facility, the local wage rates, but a number of comorbidities for the patients drawn from their medical evidence record, including their weight which apparently is very important for determining dialysis adequacy, and basically as many other things as we could glean from the claims to put in as risk adjusters.

Most of the patient characteristics seemed to do about the right thing. So many of the comorbidities that are known to be associated with difficulty of dialysis indeed lowered the adequacy scores for the facilities who had those patients. Smoking was associated with a higher death rate. The sort of things that you'd expect to see in an observational study did show up.

What didn't show up is a relationship between cost and quality. So if I look at the composite rate only -- that is, only the cost of providing the dialysis and not the additional separately billable drugs -- we didn't find any relationship whatsoever between dialysis adequacy and cost, or anemia management and cost, or costs and death rates, or costs and transplant rates. When we did find a relationship it was a positive relationship between costs and hospitalizations. In other words, the patients who were more costly to dialyze were also the patients who were more likely to be hospitalized. I interpret that as being probably a residual variation in risk that wasn't picked up by the comorbidity factors that I included in the regression.

When I throw the cost of drugs into the regression and make that my measure of cost, including effectively the number of doses of these drugs that the patients got, because the cost per dose does not vary hugely, what you find is that the costs remain unrelated to anemia and transplant, but once again you get a positive relationship between higher costs and lower quality for dialysis adequacy, mortality, hospitalizations. I definitely interpret that as showing the patients who were sicker -- effectively, putting the drug costs in the regression is like putting the number of physician visits in the regression. I'm measuring the number of doses of drugs that they got, and sure enough, the patients who got heavier doses of drugs probably were sicker.

So when all is said and done, having gone through this at some pain, my conclusions are not great. If there is a link from higher cost to higher quality, I couldn't find it in a single stage, ordinary regression. Now that's a starting point. I think Mark was pretty clear in our early discussion saying, you have to start an analysis like this somewhere. It's a very complex task. We started with -- I'm an economist. It's a knee-jerk reaction. I did a regression. I did several regressions. None of them showed me the sort of cost-quality relationship that I would like to see. That is, none of them showed me that if a facility had higher cost for the composite rate it showed higher quality measures as well.

Yet I have to admit, maybe there is a link there and I just couldn't find it. So we could try more sophisticated statistical methods, to the extent that you believe more sophisticated statistical methods -- or we can try other things. There are no good, what you call natural experiments here. We would love to see somebody change the payment rate dramatically in one state and leave payment rates in other states and see what they change. We can't do that.

I'll tell you the best alternative I could come up with and it's this. You know that dialysis patients have to get dialysis all the time. And if they go on vacation they have to get dialysis

while on vacation. And if they're on vacation for at least two weeks, we get a quality measurement out of that dialysis facility. So we actually have a subsample of relatively healthy people, who are healthy enough to go on vacation, of about 10,000 beneficiaries for whom we have quality measurements in two different facilities but it's the same person. So we could rerun this. I did a quick cut using a univariate and found nothing. But we could rerun this trying to find some relationship between cost and quality for those patients.

Other than that, your options get to be more sophisticated still. We could try and run two-stage models where we try and account for things. But the bottom line is, a simple look at this that we've done so far found nothing in terms of a cost-quality relationship. So the main questions to you are, what else would you like to see and how should we pursue this?

DR. ROWE: I think this is very interesting. As I think about quality in dialysis patients I think about it in three ways. One is with respect to anemia, albumen levels, urea reduction rates and the ones that you used, kind of functional measures of the dialysis efficiency, per se.

The second is, I think the functional capacity of the patients. Are patients being managed effectively in such a way that they're able to continue to function, either working, or involved in their life, or some measure of their functional capacity, which is, after all, what it's all about. It they're uremic and sitting home with no appetite, vomiting and scratching all day long, they may have an albumen or a hematocrit that's okay but they're not being rehabilitated.

And the third I think of in terms of being hospitalized for specific reasons. You had hospitalizations in there, Chris, but it seems to me that -- remembering back when I was a nephrologist, people got hospitalized for several reasons. If they were related to their kidney disease as opposed to they happened to need an appendectomy or something. They would have an infection, particularly an infection that was in their fistula or associated with dialysis. They would have volume overload because they were not being managed correctly with respect to their diet or the dialysis efficiency or something like that. They would have a vascular access problem. The fistula would clot and they needed to have a revision. And fourthly, they would have hypercholemia, a high potassium level which needed to be treated in the hospital because it was so severe.

So I'm making this up but those were the kinds of things that I recall being measures of quality, if you will, of different ways.

One of the things you might do, if the data are available, is you might try to parse out these hospitalizations and looked at it from that point of view. You may find some relationships between some of the intermediate variables and these different causes of hospitalization, if in fact we have those available. I don't know if you have any functional status data or not.

MS. RAY: Jack, can I clarify something you said? You said the albumen levels, so you're referring to their nutritional status; is that correct?

DR. ROWE: Yes. But again, I'm talking about managing the whole patient rather than the efficiency of the dialysis. I'm talking about how the quality of the care of the end-stage renal disease patient is getting, not how is the efficiency of the dialysis treatment, which is a different, more specific thing. Remember, we spoke some months ago about this. It's an end-stage renal disease program, it's not a dialysis program.

MS. RAY: Right. I guess my question to you though, is that a specific measure that you would like to add into the mix?

DR. ROWE: No, I was just responding to the general question of what's quality for these patients. I know you have experts who I'm sure can give you different perspectives or more

modern perspectives on this.

DR. HOGAN: I should mention my silent partner in this. Bob Berenson has actually written a lit review for this which you haven't seen yet, and was looking at alternative measures of quality and that's going to be his last assignment then is to parse out some hospitalizations for us so we can have a better list of hospitalizations.

MS. RAY: The only other point I want to mention about the vascular access is at least recent data from the U.S. renal data system has shown a shifting of some of the services for vascular access from the inpatient to the outpatient basis, so that would complicate this a little bit. But I think your point is valid.

DR. MILLER: Can I ask one thing to follow up on that? It's more a general question as to just broader measures of quality, outcome, quality of life. What are our capabilities of looking at that?

DR. HOGAN: Claims based? Claims based we could definitely get the hospitalizations. We had originally thought -- I had taken a cut at it early to look at infections that were dealt with in the hospital outpatient department rather than inpatient. But the only thing -- we were scraping the bottom of the barrel before we got Bob Berenson to look at this to say, claims-based measures based on physician services or emergency room visits or hospitalizations for cause, which we have not done yet.

DR. ROWE: I think Mark is referring more to functional status, activity levels.

DR. MILLER: Do we have any way to get any of that?

MS. RAY: Functional status, quality of life is not regularly collected for dialysis patients. There have been special studies performed for specific samples of patients by the U.S. renal data system, but it is not collected on a regular basis.

DR. NEWHOUSE: Maybe that's a recommendation.

MS. RAY: MedPAC did recommend that several years ago but we could certainly consider that.

MS. BURKE: Two things really. One was just a factual question. Remind me again what the breakout of the 50 -- on average we spend about what, $50,000 a year now on an ESRD patient? How does that break down?

MS. RAY: Dialysis care is roughly probably between 20 to 25,000. That includes the separately billable drugs.

MS. BURKE: Then the other 25 is just --

MS. RAY: Part A hospitalization accounts for roughly about 35 percent of Medicare payments. I will be sure to have a nice pie chart for you for the next time.

MS. BURKE: I think that would be an interesting thing to look at because that's always been a very interesting thing in tracking these patients.

The other thing is, I recall when I read this, there was a statement made in the key points at the beginning that suggested that providers don't appear to be stinting. That in fact there don't appear to be differences in transplantation rates, in mortality rates, all of those indicators. When I go to the study objectives and research question there's statement made at the beginning of those that in fact there has been controversy about whether or not mortality rates are higher, and whether there are in fact referral differences in terms of transplantation. So I wasn't certain whether this was a question that was asked and we presumed the conclusion, or the -- I wasn't sure how those two linked. Having made the statement at the outset and then having raised the question as a research question, whether we've actually sorted that question out, which I think are

critical questions to ask.

The other question, and I don't know whether this remains an issue. It was an issue years ago and it may not be any longer, and this is the whole question around reuse and some of the quality issues, and whether that continues to be an issue between freestanding, and whether that continues to pop up in terms of an indicator. You're looking at me like I've lost my mind.

DR. ROWE: You've touch the third rail of dialysis politics.

MS. BURKE: It was the old third rail. I'd thought we'd moved to a new rail. But it's still an issue?

DR. HOGAN: With regard to the research objectives versus that poorly written summary in the literature, most of the controversy in the literature is focused on for-profit status and I have shied away from that, mainly because I can't figure out what the policy implications would be if you found a difference. But that's not where we were focused. We were really focused on cost versus quality, versus the for-profit or chain versus quality if you want to. That was just my poor writing that confused those two there.

MS. BURKE: So are we in fact asking the question or have we established the conclusion as to whether there are differences in mortality, differences in transplantation referrals? Do we know for a fact that there are or there are not?

DR. HOGAN: As far as we can tell, there are no positive links from higher cost to higher quality that we could find in the data set.

MS. BURKE: And we're not looking specifically at the question of the for-profit? Okay.

MS. RAY: As far as re-use is concerned, that's a tough issue. It's a very clinical issue and it is something that I have been told by others that the difference, that the trend in the difference over time, that the use of re-use has gotten better, improved.

MS. BURKE: Technology has to have --

MS. RAY: Exactly. As far as the agreed-upon quality measures that we look at that used by the National Kidney Foundation and CMS, we wanted to be consistent with what those organizations were using which is why we looked at the anemia status and adequacy and hospitalization. I think it's just more clear-cut using those measures then trying to get into the murky waters of re-use.

MS. BURKE: Because that was one of the fundamental questions around costs initially between the for-profits and nonprofits, and that was the escalation and the use, re-use, early on. Now that may no longer be --

MS. RAY: Right, and in fact that trend --

MS. BURKE: That may not differ between the two sites.

MS. RAY: I don't know if that differs between the two sites any more, to be honest with you. That's, I guess, one response.

The second response is, the use of re-use, I would expect it to be declining now because the biggest national chain is no longer -- I mean, is converting their facilities to non-reuse.

DR. ROWE: I think the largest for-profit, Frizentius, is going to single use.

MS. RAY: For-profit, yes.

DR. ROWE: So that's in the opposite direction of the kind of bias --

MS. DePARLE: I just wanted to highlight, I think it's really terrific throughout the day but especially right now I think you've demonstrated the kind of analysis that can be done when we have both some quality indicators and the information, the data that we've more typically had about costs. It may still be difficult to draw conclusions. We can look at some correlations. But

I think we're showing some real progress here, so thank you for that.

I've wondered, Chris, in your looking at this, you were looking at a different question which was the link between cost and quality, but did you come to any revelations about payment adequacy? And did the issue -- one of the issues that the dialysis providers often raise with respect to that question is unallowable costs and that Medicare's payment system for them restricts them, and that they have to cross-subsidize from other places to pay for some of things that Medicare requires them to have like the social workers, and I guess the physicians, the staff physicians that are limited in how much they can pay. I just wondered if you ran into any of that, if you think it in any way influences the work that you did.

DR. HOGAN: Did someone mention third rail earlier? I am not really competent to talk about that at the moment. Unfortunately -- I should just leave it at that. I'm not competent to discuss that right now. I looked at those margins and my margins were actually, the extent that I did it, a little bit higher. But I have an edited data set. So I don't disagree with the margin calculation that was done here at all, if that's the basic issue. I took a fresh cut at the same data set and got basically the same answer. That's good.

Beyond that, they have a separate sheet on there for the adjustments to cost but I'm not comfortable enough to say that I would know whether I was looking at the disallowed costs or not. So I should just back away from that.

I did go to look at the 10-Ks that are filed with the SEC and the aggregate profit rates are fine, but that's a mix of Medicare and non-Medicare and you can't really say much.

MS. RAY: Can I address that question? Chris' analysis is based on Medicare allowable costs only. That's MedPAC's method of examining provider cost is based on the Medicare allowable. How I interpret his results is, that in our March report MedPAC concluded that based on Medicare allowable costs that payments seem to adequately cover the cost of efficient providers. I think what this study demonstrates is that efficient providers are able to furnish high quality care. So I think that our finding here supports our conclusion back in March.

MS. DePARLE: Have we ever examined -- I think this came up with respect to hospitals. Have we examined the issue of which costs are allowable under Medicare and which ones aren't with respect to dialysis, and whether or not we think that's appropriate from a policy prospective?

MS. RAY: Up until this point MedPAC has just focused on Medicare allowable cost. I think that would probably be an issue that the commissioners would want to take on at the retreat.

MS. BURKE: But to a certain extent isn't -- because it's a composite rate, the calculus is essentially the allowable cost. I mean, they're given a rate. Is your question what's in the calculus?

MS. RAY: There are certain costs that providers contend that they should be able to include on their cost reports and they can't. The one is concerning the medical director reasonable compensation equivalence and the fact that right now CMS, the current regs for the medical director's salary is based on the 1997 number for internal medicine not for nephrology. So that is one issue that providers contend that they are not able to claim as much of the cost as they incur as they should.

MS. BURKE: But is there a question, to Glenn's point, is there a question of what's in the rate and whether in looking at margins that there are amounts that have been calculated for the composite rate that are inappropriate?

DR. REISCHAUER: In theory, quality should be related to total costs, not to allowable costs. Presumably there's a very high correlation between the two.

DR. HOGAN: That's what I don't know empirically. I've heard this issue come up before and I'm not even sure I can divine that from the forms on the cost report, but we can at least look into it. There are certain things that must be subtracted and there's a separate sheet for that, but I don't know if that's all of it or not. So I need to talk to some experts on the cost report. We probably can't get the data to answer that question.

DR. MILLER: But the one thing to bear in mind here is that we're looking at variation of cost and quality and whether they're related to each other, and through many different takes on it he wasn't able to find a relationship. We're talking about covariation in cost and you're talking about, if it's this much cost or incremental amount above that for an allowable cost.

MR. HACKBARTH: So if the non-allowable costs were a constant added to everybody it wouldn't affect this analysis.

DR. NEWHOUSE: Or even if they weren't. Of the total variation in cost is hugely dominated by the allowable cost.

MS. DePARLE: But I broadened the question, because I agree the question that Chris was answering was about the link between cost and quality. I asked him about a broader view of payment adequacy and whether the issue of the non-allowable costs had come up in this. But I think you're right about your analysis.

DR. NELSON: I want to address the questions at the end. From the discussion it's not clear to me that this is the kind of research that we do very well. It involves a number of clinical variables. We haven't been able to find a cost-quality relationship with the cut that Chris has taken. So I wonder if this is something that someone else is better suited to do the research on than MedPAC.

I don't feel passionately about it, but it seems to me we've got quite a bit on our plate. As near as I can tell, this wasn't requested of us. And unless it's part of a continuum that is important to us, and it may well be, just teasing out the clinical variables that may answer this question about whether there's a relationship between cost and quality when we have mainly access to claims data, and what Bob Berenson is going to go after, I'm sure that it's what we want to be doing.

MR. HACKBARTH: Any reactions to Alan? Nancy?

MS. RAY: Yes. What Chris and I have done is an extension of what other researchers have tried to do. The other researchers, instead of dealing head-on and looking at provider cost, they have used proxies for provider cost; namely, nonprofit versus for-profit status as well as the size of the facility. Some of those studies have shown, like ours, no relationship. That is, for example, the study from the folks at CMS showed no relationship between facilities' profit status and quality of dialysis; namely, anemia status and adequacy of dialysis.

Other researchers have looked at, again, the for-profits versus nonprofit status, looking at that versus mortality, access to the kidney transplantation list, and rates of transplantation. That's where the results tend to be a little bit more mixed. Some researchers have found no relationship, some researchers have found some relationship. That's where there is a difference of opinion.

So I think what MedPAC has done is used the quality and outcome measures that others have used and have looked at the question where there's a policy issue involved, looking at the relationship between providers' cost and quality outcome, because there is a policy response to

that versus the lack of response to just looking at the facilities' profit status.

So the fact that Chris has not found any results is consistent -- and I want to reiterate this -- is consistent with what some other researchers have found using recent data also.

DR. NELSON: If I can respond. That's fine, Nancy, and I don't argue with that, if we can indeed find a confident answer. If we can provide clarification to an otherwise fuzzy issue then I'm happy. But if we don't have access to the kind of data that it takes to formulate a confident answer, I'd hate to add to the confusion.

DR. REISCHAUER: I'd like to disagree with you Alan, in the sense that I think this finding is important and is interesting. Is it definitive? Is it locked up in a box for all time? No. Maybe there will be some better data and some better methodology, but my reading of the literature would say that this is as sophisticated an analysis as is out there, probably more sophisticated, and that this is a question that is important for us to look at over time with respect to other types of providers. We have hospitals that are very expensive relative to other hospitals. Do they provide higher quality care? To the extent that they do, should that be reflected in payment policies of Medicare? We're at the beginning of this discussion and analysis, but I see these as building blocks that will lead to a more coherent payment policy in the long run.

DR. NELSON: I'll finish with this. I'm persuaded. I don't have any problem with it. It refers back to my earlier comment about it, if this is part of a continuum, if it represents an approach that we're going to take with our tasks in general then that's perfectly fine with me. I just hope that we are able to enlighten this issue.

MR. HACKBARTH: I for one would hope that we can more consistently look at quality when in fact there are measures readily available as in this case. I do think we need to be very careful not to overstate what we can say from the available evidence. But for us to not look when possible at quality issues I think would be a tragic mistake for us. It's certainly an issue that comes up in all of the policy debates before Congress that this payment policy, whatever it might be, is harming quality of care. So if we can bring some data to bear on that question I think we need to seize the opportunity.

DR. WOLTER: I think a specific theme within the quality discussion would be this issue of the acuity of the patients. I think you said, Chris, that in what you looked at in terms of comorbid condition you didn't really see differences. But the hospitalization rates are a hint of something, and it would be nice, if we can't show a link between cost and quality to at least feel like there is some reason for the additional cost. If that reason is the patients are sicker or harder to take care of, or they're hospitalized more, as opposed to financial incentives or practice pattern variations, that would be worth uncovering if we could.

DR. HOGAN: I misspoke. The only part of the regression that did work were the patient characteristics. So we found a facility that attracted a lot of heavy patients had a low quality score. Facilities that attracted patients with congestive heart failure had a low quality -- all of the comorbidities we measured worked very well. People who smoked died young, all those things.

The only part that didn't work was the cost part.

DR. WOLTER: But I think that's what you said, the comorbidities didn't correlate with the cost. Did you say that?

DR. HOGAN: The comorbidities correlated with the outcomes. But once you've accounted for the comorbidities, the cost and the outcomes were uncorrelated. Does that make sense?

DR. WOLTER: My specific question was, did you find anything in the risk assessment

of the patients that would account for the cost differences?

MS. RAY: We didn't do that.

MR. HACKBARTH: Any other comments on this?

Okay, thank you. Good job, Chris.

DR. ROWE: Beyond this project, are we going to at some point have a chance to look more broadly at the experience of these patients beyond the dialysis quality-cost issue?

DR. MILLER: I think you're going to see work on that -- I assume what you're talking about is some of the things that you've mentioned in previous meetings. I thin you're going to see work on that maybe as soon as the next meeting, and certainly this is going to be something that we're going to be taking up for an agenda in the summer. Are we going to see it as early as the next meeting? Yes, we're actually going to see some of it as early as the next meeting.

MR. HACKBARTH: Okay. That completes our agenda for today.